

ABSTRACT OF THE DISCLOSURE

To suppress a fluctuation in resistivity around a target value to thereby stably manufacture high resistivity silicon single crystals having almost the same resistivity values in a manufacturing method wherein a silicon raw material is molten to manufacture a high resistivity silicon single crystal in the range of from 100 to 2000 Ω cm with a CZ method. In a case where poly-silicon produced with a Siemens method using trichlorosilane as raw material is used as the silicon raw material, an impurity concentration in the silicon raw material is selected so as to be controlled in the range of from - 5 to 50 ppta method in terms of (a donor concentration - an acceptor concentration) and the selected poly-silicon is used. In a case of a MCZ method, the poly-silicon is selected in the range of from - 25 to 20 ppta and the selected poly-silicon is used. Instead of the raw material, poly-silicon produced with a Siemens method using monosilane as raw material is used. Alternatively, a silicon crystal manufactured with a CZ method or a MCZ method using poly-silicon raw material is used.